

# MONTHLY REPORT OF RIVER/FLOOD CONDITIONS

**TO: NATIONAL WEATHER SERVICE  
HYDROMETEOROLOGICAL INFO CENTER  
1325 EAST-WEST HIGHWAY  
SILVER SPRING, MD 20910**

**REPORT FOR:**  
**April 2010**

**Date:** 5/7/10

**Signature:** Peter Corrigan

**Summary:** April was quiescent in terms of significant hydrologic activity across the Blacksburg Hydrologic Service Area (HSA), with no river or flash flooding. Mean April precipitation was 2.01 inches versus the long-term average (1971-2000 normal) for this month of 3.72 inches (70 of the 74 cooperative stations reporting), or 54 percent of average. Precipitation at NWS stations ranged from a low of 1.17” at Pulaski 2E (PSKV2) in Pulaski County, VA to a high of 3.27” at Meadows of Dan (MODV2) in Patrick County, VA. At Roanoke Airport ASOS (ROA) the 1.35” that fell was the 9<sup>th</sup> lowest since 1912. Monthly average temperatures were also unusually warm ranging from 55.5°F in Blacksburg (+5.5°) to 61.9°F at Danville (+4.6°). It was the 2<sup>nd</sup> warmest April on record at Bluefield, WV, tied for 3<sup>rd</sup> warmest at Roanoke and 4<sup>th</sup> warmest at both Danville and Blacksburg.

Scattered severe thunderstorms developed over the mountains in the late afternoon and evening of April 5th south of a front stalled out over the Ohio Valley. Rainfall in some of the stronger cells approached 1 inch but most areas received much less, generally 0.10 to 0.25 inches. Mostly the mountain counties were affected with the exception of isolated cells over Buckingham and Henry into Rockingham counties.

High pressure over the southeast brought record warmth to the HSA on the 6<sup>th</sup> and 7<sup>th</sup> with highs topping out in the mid-80s in the mountains and low 90s over the piedmont. The heat was brought to an end by a cold front on the 8<sup>th</sup> which also triggered widespread showers and some thunderstorms. A number of storms turned severe with strong winds and pockets of hail, but rainfall was not especially impressive. Rainfall amounts ranged from less than 0.25 inches in the western mountains to 1.5-2.0 inches in parts of the upper New, Yadkin, lower Roanoke and Dan River basins. The top ten 24-hour gage totals included 1.93" at Blowing Rock 2.2 NE CoCoRaHs, 1.83" at King 5 SW Coop (KIGN7), 1.72" at Huddleston 8.7 SW CoCoRaHs, 1.68" at Boone 4.8 SE CoCoRaHs, 1.64" at Snow Creek/Route 632 IFLOWS (SNYV2), 1.61" at both Pine Hall 6.6 NNW CoCoRaHs and Rocky Mount 4.3 NNW CoCoRaHs, 1.60" at Boone 1 SE COOP (BOON7), 1.55" at Raven Knob RAWs (RAVN7), and 1.54" at Lynchburg ASOS (LYH). These turned out to be the highest rain amounts recorded the entire month of April in the HSA, but no flooding was reported and no flood products issued during this event.

The next several weeks were mostly dry across the Blacksburg HSA with little in the way of notable weather as a weak ridge of high pressure and generally zonal flow aloft kept the area free from precipitation.

The dry pattern was briefly interrupted as a deep upper level trough over the southern Great Plains lifted northeast toward the Tennessee/Ohio valleys later on the 24<sup>th</sup> pushing a warm frontal boundary north into the area, followed by a strong cold front on the 25<sup>th</sup>. Widespread showers developed over the entire area in association with these surface boundaries and upper support. Precipitation amounts were generally moderate and somewhat uniform, ranging from 0.50 to 0.75 inches in most of the upper James and Greenbrier river basins, 0.25" to 0.50" across the New and Roanoke basin and less than 0.25 inches across the lower Dan River basin. A few mountain sites picked up more than 1 inch in stronger showers including 1.56" at Busted Rock #1 IFLOWS (BUSV2), 1.44" at Sloan Branch IFLOWS (SLOV2), 1.08" at both Nicholls Knob IFLOWS (NICV2) and Oriskany IFLOWS (ORIV2), and 1.04" at Douthat State Park IFLOWS (DOUV2).

Widely scattered light showers fell along the same frontal boundary during the evening of the 25<sup>th</sup> with a series of stronger storms tracking through the central HSA from southern Wythe County through portions of Pulaski, Montgomery, Roanoke and Franklin. These storms dropped generally 0.50 to 0.75 inches in these areas, along with some isolated large hail. Another strong storm developed in Rockbridge County and produced large hail along with brief heavy rainfall, but totaling less than 0.50 inches.

April 2010 was the driest month since February 2009 and with the unusual warmth (see Summary above) growing season conditions were well ahead of normal by month's end. Only a few chilly mornings the last few days of the month, with widespread below freezing temperatures in the mountains and mid-30s over the piedmont, prevented a record warm April at many locations. Yet after a very wet winter of 2009-2010, this dry month combined with slightly below normal March precipitation left the area facing the possibility of water shortfalls as the growing season moves into full swing and soil moisture recharge is overcome by water usage.

**Non-Routine Hydrologic Product Summary (Apr):**

Flood/Flash Flood Watches (FFARNK): 0

Flood Advisories (Urban/Small Stream - FLSRNK): 0

Flash Flood Warnings (FFWRNK): 0

Areal Flood Warnings (FLWRNK): 0

River Flood Warnings (FLWRNK - forecast points): 0

cc:

MIC RNK

NWS HIC

NWS ER

SERFC

LMRFC

OHRFC

MARFC